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[54] **INFRARED IMAGING SYSTEM EMPLOYING ON-FOCAL PLANE NONUNIFORMITY CORRECTION**

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[52] **U.S. Cl.** **250/332**; 250/349; 250/370.08

[58] **Field of Search** 250/332, 349, 250/338.4, 370.08

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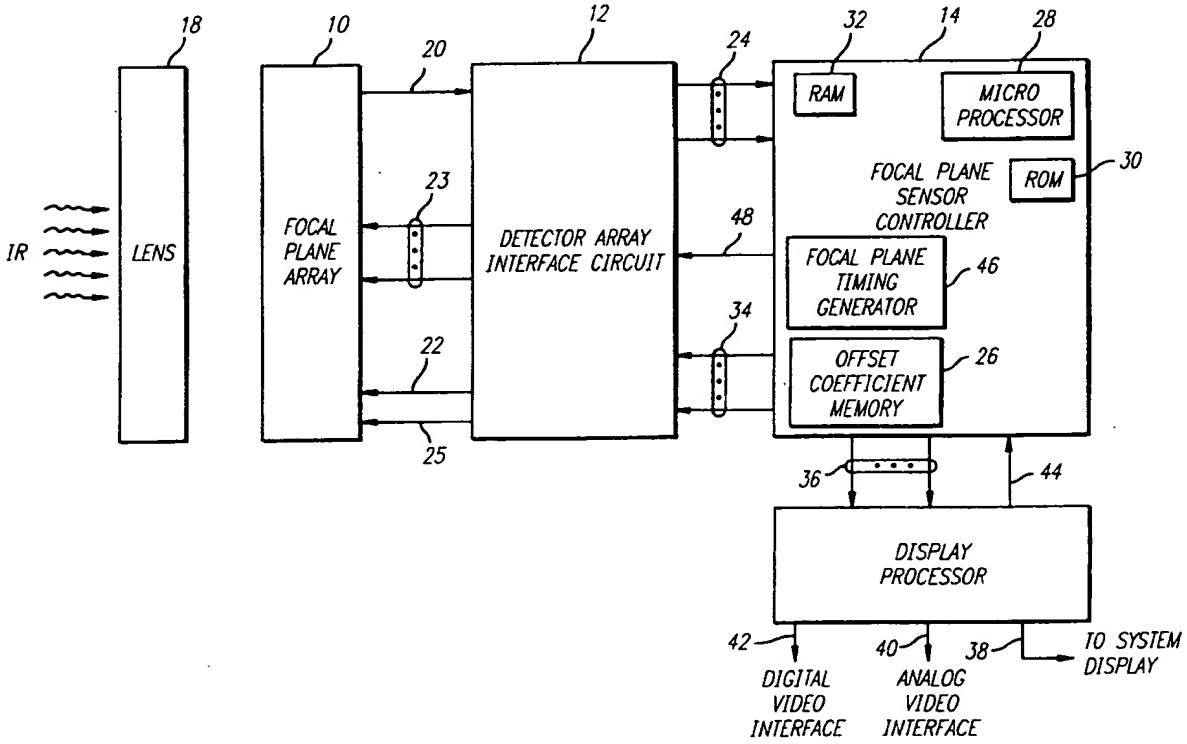
[57] **ABSTRACT**

An infrared imaging system having a focal plane array including an array of detector elements and a readout circuit and including nonuniformity correction circuitry on the focal plane array. The individual detector elements correspond to pixels of an infrared scene to be imaged. Offsets in detection signals from each pixel arising from nonuniformities in the individual detector elements in the array are corrected by storing offset correction values for each detector element and using the stored offset values to control correction circuitry as the respective detector element signals are read out. The detector array and readout circuit are preferably formed as a monolithic or hybrid structure and the offset correction is provided on the focal plane array prior to signal amplification and analog to digital conversion.

35 Claims, 10 Drawing Sheets